IN THE DRAWINGS:

Please replace page 2 of the drawing sheets as enclosed, where the labels for S7 and S1, S11 in Figure 5 are reversed, so that the direction of the arrows matches the specification.

REMARKS

Claims 1, 3-10, 12-14, 16-21, and 23-30 are now pending in the present application. By this response, claims 2, 11, 15, and 22 are canceled; claims 1, 4-9, 14, 17, 20-21, and 24-26 are amended; and claims 27-30 are added. Reconsideration of the claims is respectfully requested.

Applicants are submitting replacement page 2 of the formal drawings in which the corrections to Figure 5 have been made as required by the examiner.

I. 35 U.S.C. § 102, Anticipation

Claims **1-8** and **14-27** stand rejected under 35 U.S.C. 102(e) as anticipated by Dowling. This rejection is respectfully traversed.

The rejection states:

> In Dowling, the messages are sent from the candidates via discovery packets to the commander switch. A group is to be created from the candidate switches, based upon the discovery of the candidate switches described at columns 13 and 14, noting especially that CDP packets are sent directly to the commander switch. Thus the candidate switches send attributes information to the commander switch via the CDP packets, wherein per column 10, CDP is used to automatically identify candidate network devices and allows a network administrator to view information about the device. Column 13, lines 54-65 set forth the criteria for a switch to be a candidate, which includes at a minimum information about an operating system (i.e. criteria (2) having HTTP capabilities and CDP enabled) which is further defined at column 9, lines 30-41, by specifying particular operating systems that are supported. The requestor is the person operating the management station 104 which ultimately selects the group based upon the attributes of the candidate criteria, and such is done dynamically as the commander switch presents the candidate switches to the requestor, who then has the group returned when the group is ultimately selected. Thus groups are created out of candidate switches which send out CDP packets to a commander switch which is under the control of the management station which ultimately performs the final grouping based upon the candidate criteria. Figure 11 shows a sample monitoring and configuration display.[1]

The Federal Circuit has ruled:

> A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in

[1] Office action of 04/08/2005, item 3, pages 3-4

> that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983).

The independent claims have been amended to more clearly recite the claimed invention. Exemplary claim 1, as amended, reads:

> 1. (Currently amended) A method in a data processing system for grouping based on attributes, the method comprising:
>
> maintaining a set of attributes relating to elements in data processing systems, wherein a desired combination of the attributes in a plurality of possible combinations of the attributes is used to create a respective group of elements containing the respective desired combination of the attributes;
>
> upon receipt of a notification that a new attribute can be searched, dynamically updating the set of attributes;
>
> receiving a query from a requestor wherein the query includes criteria;
>
> identifying a first group of devices, the attributes of which match the criteria; and
>
> returning the first group to the requestor.

Dowling does not anticipate the claimed invention because it does not show each and every element of the claims. Dowling does not show the step *maintaining a set of attributes relating to data processing systems, wherein a desired combination of the attributes in a plurality of possible combinations of the attributes is used to create a respective group of devices containing the respective desired combination of the attributes*. Neither does Dowling show *upon receipt of a notification that a new attribute can be searched, dynamically updating the set of attributes*.

Dowling states:

> ... it would be convenient for a network administrator to be able to assign a single IP address to one network device in a cluster, and then to be able to configure and manage all of the network devices in the cluster using this single IP address.[2]
>
> A group of network devices, such as Ethernet switches, are logically configured as a single cluster, with one commander device and one or

[2] Dowling, column 6, lines 42-46

more member devices. Each network device capable of belonging to a cluster transmits data packets containing cluster capability information to its neighbors. Each network device capable of belonging to a cluster that receives data packets containing cluster capability information maintains a database containing information about its cluster-capable neighbor devices. The commander device of a cluster is the point-of-contact through which the cluster is managed. The commander device maintains a database of neighbors of the entire cluster. Upon user request, the commander device displays a list of cluster neighbors and notes which ones may be added to the cluster. When the user adds a device to the cluster, that device immediately sends its database of discovered neighbors to the commander device. The commander device adds those neighbors to its database and displays them at the user's next request. Thus, a user is informed of which switches are available to be added to a cluster at any given time.[3]

The commander applies rules to devices attached to the cluster to determine whether each is qualified to join the cluster. According to one embodiment of the present invention, in order to become a cluster candidate, a switch must meet the following qualification criteria: (1) it must be cluster-capable, (2) it must have HTTP capabilities and have CDP enabled, (3) it must be connected to a member of the existing cluster, (4) its connection must be STP forwarding at both ends, and (5) it must not be an active member of any other cluster. In addition, the enable password of the candidate must be either the same as the commander or known to the administrator who is adding the switch to the cluster.[4]

From these excerpts of Dowling, it is clear that while this patent addresses grouping devices, Dowling is concerned with a specific type of grouping – that of grouping network devices into clusters of adjoining devices that can be addressed by a single IP address. Additionally, while Dowling must determine that candidate network devices have specific capabilities for eligibility, for any embodiment of the system of Dowling, this patent always looks at the same attributes, such as proximity to an existing group member, having HTTP capabilities, and being CDP enabled. In contrast, the present invention is used in more generalized systems in which different groupings can be requested at different times or by different users using different combinations of the attributes. The application describes this, for example, on page 11, line 8 through page 12, line 2.

[3] Dowling, Summary of the Invention, column 6, line 66 through column 7, line 18
[4] Dowling, column 13, lines 54-65

Thus, in the basic system in which the currently claimed invention is implemented, different combinations of attributes are used to create different groups of devices. Dowling falls short of even this basis system. That is, Dowling does not meet the limitation, *wherein a desired combination of the attributes in a plurality of possible combinations of the attributes is used to create a respective group of devices containing the respective desired combination of the attributes*. Likewise, the excerpts above also show that Dowling is concerned with a fixed set of information that it is using to make its grouping. This is in contrast to the presently claimed invention, which is directed to allowing the attributes that are searched to be dynamically updated as new types of devices and capabilities are implemented. Dowling can update the membership in the cluster, but Dowling cannot update the attributes for which it searches when forming the cluster. Thus, Dowling does not meet the limitation of the claimed invention, *wherein the set of attributes can be dynamically updated.* The rejection of claim 1 under 102(a) over Dowling is overcome.

Since claims 3-8 depend from claim 1, the same distinctions between Dowling and the claimed invention discussed with reference to claim 1 also applies for these claims. Additionally, ones of these claims provide additional claimed subject matter that his not taught by Dowling.

For example, claim 8 recites, *wherein the first group is generated using meta-data describing attributes within the set of attributes*. Regarding this claim, the rejection states, *the meta data is seen as the various tables which describe the data about the candidate switches themselves.*[5] It is submitted that, contrary to the assertion in the office action, these tables would not be viewed as metadata by one of ordinary skill in the art, as the data in the tables is about the candidate switches, and does not describe other data. Thus, this rejection is overcome.

Claims 14-20 and 21-27 are rejected for reasons similar to those used against claims 1-8, they are also allowable.

Therefore, the rejection of claims 1-8 and 14-20 under 35 U.S.C. § 102 has been overcome.

[5] Office action of April 8, 2005, page 4, lines 16-17

Furthermore, Dowling does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. Dowling is concerned with grouping network devices that are capable of sharing a network address as a cluster and does not consider the other uses of grouping. Absent the examiner pointing out some teaching or incentive to implement the maintenance of attributes that can be variously combined and which are dynamically updateable with Dowling, one of ordinary skill in the art would not be led to modify Dowling to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify Dowling in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

II. 35 U.S.C. § 103, Obviousness

Claims **9-13** stand rejected under 35 U.S.C. 103(a) as being obvious over Dowling in view of Thompson et al. This rejection is respectfully traversed.

Thompson is cited as showing the claimed hardware used in the invention. However, Thompson does not appear to make up for the omissions of Dowling, so the rejections discussed above for claim 1 also apply to these claims.

Therefore, the rejection of claims 9-13 under 35 U.S.C. § 103 has been overcome.

III. New Claims

Newly added claim 27 recites,

> 27. (New) The method of claim 1, wherein if the group has previously been generated, the assembling step retrieves the group from storage and if the group has not previously been generated, the assembling step dynamically generates the group.

The flexibility offered by allowing the attributes searched on to change over time means that as new attributes are added, new groups will be formed. Dynamically generating these groups, when necessary, allows for the creation of new groups using the new attributes, while saving old groups relieves the system of needing to recreate a group at a later point in time. Neither Dowling nor Thompson shows that the method can determine if the group has been previously generated and then decide whether to retrieve a saved

group or generate a new one. Thus claim 27, as well as similar claims 28-30, are separately patentable.

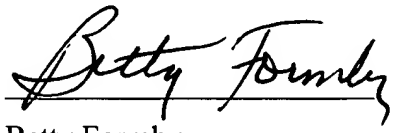
IV. Conclusion

It is respectfully urged that the subject application is patentable over Dowling and Thompson and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: July 8, 2005

Respectfully submitted,



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